

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re Application of: David J. Ecker, et al

Serial No.: 10/660,998

Group Art Unit: Not Yet Assigned

Filing Date: September 12, 2003

Examiner: Not Yet Assigned

For: **METHODS FOR RAPID
FORENSIC ANALYSIS OF
MITOCHONDRIAL DNA AND
CHARACTERIZATION OF
MITOCHONDRIAL DNA
HETEROGENEITY**

DATE OF DEPOSIT: 21 November 2003
I HEREBY CERTIFY THAT THIS PAPER IS BEING
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TYPED NAME: Paul K. Legaard

REGISTRATION NO: 38,534

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

INFORMATION DISCLOSURE STATEMENT

Pursuant to 37 C.F.R. §§ 1.56 and in accordance with 37 C.F.R. §§ 1.97 and 1.98, information relating to the above-identified application is hereby disclosed, the Examiner in charge of the above-identified application is requested to consider and make of record the references listed on the PTO Form SB/08A and PTO Form SB/08B, formerly known as PTO Form 1449 submitted herewith.

Inclusion of the information submitted herewith is not to be construed as an admission that the information is material as that term is defined in 37 C.F.R. § 1.56(b).

In accordance with 37 C.F.R. § 1.97(g), the filing of this Information Disclosure Statement shall not be construed to mean that a search has been made.

This Information Disclosure Statement is being filed:

- within three months of the filing date of the patent application.
 - within three months of the date of entry into the national stage as set forth in 37 C.F.R. § 1.491 of the international application.
 - before the mailing date of a first Office Action on the merits.
 - after the mailing date of a first Office Action on the merits, but before the mailing date of a Final Office Action under 37 C.F.R. § 1.116 or a Notice of Allowance under 37 C.F.R. § 1.311, and accordingly is accompanied by:
 - the Statement under 37 C.F.R. § 1.97(e) (see "Statement" below);
- or**
- the Fee of \$180.00 set forth in 37 C.F.R. § 1.17(p); or
 - No fee is owed by the applicant(s).
- In accordance with 37 C.F.R. § 1.129(a), this Information Disclosure Statement is being filed in connection with the first or second After Final Submission, and accordingly is accompanied by the Statement under 37 C.F.R. § 1.97(e) (see "Statement" below) and the fee of \$180.00 as set forth in 37 C.F.R. § 1.17(p), is attached.
 - after the mailing date of a Final Office Action under 37 C.F.R. § 1.116 or a Notice of Allowance under 37 C.F.R. § 1.311, but before, or simultaneously with, the payment of the Issue Fee, and accordingly is accompanied by the Statement under 37 C.F.R. § 1.97(e), a Petition requesting consideration of the Information Disclosure Statement and the Petition Fee of \$130.00 set forth in 37 C.F.R. § 1.17(i)(1) (see "Statement," "Petition," and "Fees" below).
 - Copies of references (BA-BG and CA-CF) listed on the attached PTO Form SB/08A and PTO Form SB/08B, formerly known as PTO Form 1449 are enclosed.

EXCEPT THAT:

- In view of the voluminous nature of references @@, and the likelihood that these references are available to the Examiner, copies are not enclosed herewith.
- In accordance with 37 C.F.R. § 1.98(d), copies of the following references listed on the attached PTO Form SB/08A and PTO Form SB/08B, formerly known as PTO Form 1449 are not enclosed herewith because they were previously cited by or submitted to the U.S. Patent and Trademark Office in patent application(s) for which a claim for priority under 35 U.S.C. § 120 have been made in the instant application.

- Copies of references listed on the attached PTO Form SB/08A and PTO Form SB/08B, formerly known as PTO Form 1449 were previously cited by or submitted to the U.S. Patent and Trademark Office in parent application Serial No. _____ filed on _____.
- If any of the foregoing publications are not available to the Examiner, Applicant will endeavor to supply copies at the Examiner's request.

Statement under 37 C.F.R. § 1.97(e)

- The undersigned attorney hereby states that each item information contained in the Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign patent application not more than three months prior to the filing of the Information Disclosure Statement.

Petition

- Applicant(s) hereby petitions the Assistant Commissioner to consider the references listed in this Information Disclosure Statement, on the enclosed PTO Form SB/08A and PTO Form SB/08B, formerly known as PTO Form 1449, and the examination of the above-identified patent application.

Fees

- No Fee is owed by the applicant(s).
- The Information Disclosure Statement Fee of \$180.00 under 37 C.F.R. § 1.17(p) is enclosed herewith.
- The Petition Fee of \$130.00 under 37 C.F.R. § 1.17(i)(1) is enclosed herewith.

Method of Payment of Fees

- Attached is a check in the amount of \$_____. This form is submitted in duplicate.
- Charge Deposit Account No. 50-1275 in the amount of \$_____. This form is submitted in duplicate.
- Please charge any deficiency or credit any overpayment to Deposit Account 50-1275.

No fee or Statement is required under 37 C.F.R. § 1.97(b).

Respectfully submitted,



Paul K. Legaard
Registration No. 38,534

Dated: 21 November 2003

COZEN O'CONNOR, P.C.
1900 Market Street, 5th Floor
Philadelphia, PA 19103-3508
(215) 665-2000 – Telephone
(215) 701-2013 - Facsimile

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TRANSMITTAL FORM

(to be used for all correspondence after initial filing)

| | | | | |
|--|--------------------|------------------------|--------------------------------|--|
| Application Number | 10/660,998 | | | |
| Filing Date | September 12, 2003 | | | |
| First Named Inventor | David J. Ecker | | | |
| Art Unit | Not Yet Assigned | | | |
| Examiner Name | Not Yet Assigned | | | |
| Total Number of Pages in This Submission | 7 | Attorney Docket Number | IBIS0062-100 (DIBIS-0002US.P4) | |

ENCLOSURES (check all that apply)

| | | |
|---|--|--|
| <input type="checkbox"/> Fee Transmittal Form <input type="checkbox"/> Fee Attached <input type="checkbox"/> Amendment / Reply <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s) <input type="checkbox"/> Extension of Time Request <input type="checkbox"/> Express Abandonment Request <input checked="" type="checkbox"/> Information Disclosure Statement <input type="checkbox"/> Certified Copy of Priority Document(s) <input type="checkbox"/> Response to Missing Parts/ Incomplete Application <input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53 | <input type="checkbox"/> Drawing(s) <input type="checkbox"/> Licensing-related Papers <input type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund <input type="checkbox"/> CD, Number of CD(s) | <input type="checkbox"/> After Allowance Communication to Group <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input type="checkbox"/> Appeal Communication to Group (Appeal Notice, Brief, Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input checked="" type="checkbox"/> Other Enclosure(s) (please identify below): References BA-BG and CA-CF |
| | | Remarks |

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

| | | | |
|-------------------------|---|--|--|
| Firm or Individual name | Paul K. Legaard/Reg No. 38,534 | | |
| Signature |  | | |
| Date | 21 November 2003 | | |

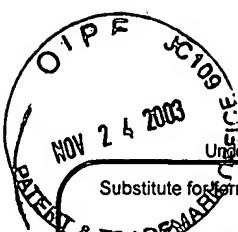
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|-----------------------|---|--|--|
| Typed or printed name | Paul K. Legaard | | |
| Signature |  | | |
| Date | 21 November 2003 | | |

This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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Substitute for Form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet 1 of 2

| <i>Complete if Known</i> | |
|---------------------------------|--------------------------------|
| Application Number | 10/660,998 |
| Filing Date | September 12, 2003 |
| First Named Inventor | David J. Ecker |
| Art Unit | Not Yet Assigned |
| Examiner Name | Not Yet Assigned |
| Attorney Docket Number | IBIS0062-100 (DIBIS-0002US.P4) |

U.S. PATENT DOCUMENTS

FOREIGN PATENT DOCUMENTS

| Examiner Initials* | Cite No. ¹ | Foreign Patent Document | Publication Date MM-DD-YYYY | Name of Patentee or Applicant of Cited Document | Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear | T ⁶ |
|--------------------|-----------------------|---|--------------------------------|---|--|----------------|
| | | Country Code ³ - Number ⁴ - Kind Code ⁵ (if known) | | | | |
| | BA | WO99/14375 | 03/23/99 | Genetrace Systems | | |
| | BB | WO97/33000 | 09/12/97 | Genetrace Systems | | |
| | BC | WO98/21066 | 05/14/98 | Sequenom | | |
| | BD | WO97/37041 | 10/09/97 | Sequenom | | |
| | BE | WO99/31278 | 06/24/99 | Sequenom | | |
| | BF | WO98/54751 | 12/03/98 | Genetrace Systems | | |
| | BG | WO98/12355 | 03/26/98 | Genetrace Systems | | |
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|-----------------------|--|--------------------|--|
| Examiner Signature | | Date Considered | |
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**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(use as many sheets as necessary)

Sheet

2

of

2

Complete if Known

| | |
|----------------------|--------------------|
| Application Number | 10/660,998 |
| Filing Date | September 12, 2003 |
| First Named Inventor | David J. Ecker |
| Group Art Unit | Not Yet Assigned |
| Examiner Name | Not Yet Assigned |

Attorney Docket Number IBIS0062-100 (DIBIS-0002US.P4)

OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS

| Examiner Initials * | Cite No. ¹ | Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published. | T ² |
|---------------------|-----------------------|--|----------------|
| | CA | Aaserud, et al., "Accurate base composition of double-strand DNA by mass spectrometry," J. Am. Soc. Mass Spec. (1996) 7:1266-1269. | |
| | CB | Muddiman, et al., "Length and base composition of PCR-amplified nucleic acids using mass measurements from electrospray ionization mass spectrometry," Anal. Chem. (1997) 69:1543-1549. | |
| | CC | Wunschel, et al., "Heterogeneity in bacillus cereus PCR products detected by ESI-FTICR mass spectrometry," Anal. Chem. (1998) 70:1203-1207. | |
| | CD | Muddiman, et al., "Sequencing and characterization of larger oligonucleotides by electrospray ionization fourier transform ion cyclotron resonance mass spectrometry," Rev. Anal. Chem. (1998) 17:1-68. | |
| | CE | Hurst, et al., "Detection of bacterial DNA polymerase chain reaction products by matrix-assisted laser desorption/ionization mass spectrometry," Rapid. Comm. Mass. Spec. (1996) 10:377-382. | |
| | CF | Muddiman, et al., "Precise mass measurement of a double-stranded 500 base-pair (309 kDa) polymerase chain reaction product by negative ion electrospray ionization fourier transform ion cyclotron resonance mass spectrometry," Rapid Comm. Mass Spec. (1999) 13:1201-1204. | |
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|--------------------|-----------------|
| Examiner Signature | Date Considered |
|--------------------|-----------------|

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached.

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